

REMARKS

Claim 1 has been examined. Claims 2-22 have been withdrawn from consideration. By this amendment, Applicant adds claim 23. Claims 1-23 are all the claims pending in the application.

1. Formalities

Applicant requests that the Examiner acknowledge the ten replacement drawing sheets submitted with the response on December 12, 2003.

2. Claim Rejections Under § 102

The Examiner has rejected claim 1 under 35 U.S.C. § 102(e) as being anticipated by Bailleul (US 6,477,211) ["Bailleul"]. Applicant traverses the rejection.

Claim 1 recites a picture encoding system that comprises "a quantization step controller modifying a quantization ... wherein said modification of said quantization step is based on an input buffer storage volume measured at the input buffer." The Examiner contends that control codes are being monitored at the input buffer and the information that is present in the control codes determines the quantization step. The Examiner contends that information stripped from the control codes is enough to read on the claimed information from the input buffer. The Examiner cites col. 9, line 60 to col. 10, line 40 to support his contention that control codes are monitored at the input buffer and used to control the quantization parameter.

Applicant submits that Bailleul is different from the present invention. Bailleul defines two types of DIBs (decoder input buffer). The first (DIB1, Fig. 2) is disposed at the input to the transcoder, whereas the second (DIB2, Fig. 2) is disposed outside the transcoder. DIB 1 and DIB 2 have different functions, respectively. DIB1 is a buffer for receiving and storing Data Stream (DS) by the transcoder. DIB 2 is a buffer for receiving and storing transcoded data stream (DST) which is received from the encoder output buffer of the transcoder.

According to Bailleui, the decoder input buffer that is monitored upon controlling the quantization parameter (QP) is DIB2 in Fig. 2, and not DIB1. That is, the quantization parameter (QP) is changed in accordance to the data stream volume stored (accumulated) in DIB2. As disclosed on lines 60-65, col. 9, the controller (CON) receives ΔT_{dib} (Decoder input buffer delay time) from the input buffer. However, ΔT_{dib} is the buffer delay time which is different from the claimed storage volume at the input buffer (DIB1).

ΔT_{dib} suffers fluctuation by the transcode processing, and thus ΔT_{dib} is recalculated anew by the transcoder.

Control Codes (CC) are defined as included in the data stream (DS). However, the claimed storage volume of the input buffer (DIB1) is not included in the DS. Rather, the DS only includes VBV Buffer information for calculating ΔT_{dib} .

Applicant submits that the VBV Buffer is a value calculated from a virtual buffer by the encoder which outputs the data stream, and not the claimed storage volume of the input buffer (DIB1). Also, based on the fluctuation caused in the network, the behavior of VBV Buffer is different from that of input buffer.

Thus, Applicant respectfully submits that the Examiner's contention that the information present in the control codes be used to determine the quantization step size is incorrect. To be correct, the information present in the control codes is used to update the VBV Buffer value.

In contrast to Bailleul, in the present invention, the claimed decoder input buffer that is being monitored (in order to control the quantization parameter (QP)) is more similar to DIB1 (Fig. 2 of Bailleul). Because the DS of DIB1 does not contain the claimed storage volume of the input buffer, Applicant submits that this feature is not being measured as set forth in claim 1. Thus, the present invention is totally different from Bailleul.

3. New Claims

By this Amendment, Applicant adds claim 23. Applicant submits that claim 23 is patentable at least by virtue of its dependency, as well as the feature set forth therein.

4. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Pursuant to 37 C.F.R. § 1.136, Applicant is filing a petition (with fee) for one month of extension time herewith, making this response due on or before July 12, 2004. The USPTO is

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
Application No.: 09/725,689

Attorney Docket No.: Q62061

directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

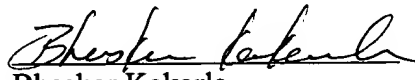
Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER


Bhaskar Kakarla
Registration No. 54,627

Date: June 24, 2004